Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (Cancelled)

Claim 14 (Currently amended): ~~The device of claim 13~~ A multiple output thermal detection and protection device, comprising:

a two-terminal snap-action thermal switch structured in a normally open configuration and having a thermally activated snap-action portion that is electrically coupled between two mutually electrically isolated terminals that are both electrically isolated from a housing containing the snap-action portion; and

an electrical temperature sensor that is both thermally and electrically coupled to the snap-action thermal switch wherein the electrical temperature sensor is mounted on an interior surface of the snap-action thermal switch using a ~~thermally conductive~~ bonding agent.

Claim 15 (Currently amended): ~~The device of claim 13~~ A multiple output thermal detection and protection device, comprising:

a two-terminal snap-action thermal switch structured in a normally open configuration and having a thermally activated snap-action portion that is electrically coupled between two mutually electrically isolated terminals that are both electrically isolated from a housing containing the snap-action portion; and

an electrical temperature sensor that is both thermally and electrically coupled to the snap-action thermal switch wherein the electrical temperature sensor is mounted on an exterior surface of the snap-action thermal switch using a bonding agent.

Claim 16 (Currently amended): The device of claim ~~13~~ 15 wherein the electrical temperature sensor and the snap-action thermal switch output a signal representative of temperature using one or more electrical terminals in common.

Claim 17 (Original): The device of claim 16 wherein the snap-action thermal switch is structured to be normally open at sensed temperatures below a predetermined set point;

the two-terminal snap-action thermal switch includes two terminals that are mutually electrically isolated when the snap-action thermal switch structured in the normally open configuration; and

the integral electrical temperature sensor is electrically coupled across the two isolated terminals.

Claim 18 (Original): The device of claim 17 wherein electrical contact portions of the two isolated terminals are closed at sensed temperatures above a predetermined set point.

Claim 19 (Original): The device of claim 16 wherein the two-terminal snap-action thermal switch includes two electrical terminals that are mutually electrically isolated when the snap-action thermal switch structured in the normally open configuration;

the snap-action thermal switch is structured to be in one of the normally open and a normally closed configuration at sensed temperatures below a predetermined set point;

further comprising a third electrical terminal that is mutually electrically isolated from the two electrical terminals of the two-terminal snap-action thermal switch; and

wherein one of the two isolated terminals of the two-terminal snap-action thermal switch is shared by one terminal of the integral electrical temperature sensor, and a second terminal of the integral electrical temperature sensor is electrically coupled to the third electrical terminal.

Claim 20 (Original): The device of claim 19 wherein the shared one of the two isolated terminals of the two-terminal snap-action thermal switch is structured to be coupled to a voltage source, a second one of the two isolated terminals is structured to be coupled to a load, and the output of the integral electrical temperature sensor is coupled to the third electrical terminal.

Claim 21 (Original): The device of claim 20 wherein the integral electrical temperature sensor is an electrical temperature sensor selected from a group of electrical temperature sensors that includes a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 22 (Previously presented):The device of claim 20 wherein the integral electrical temperature sensor is a flat package, two-terminal temperature transducer microchip .

Claim 23 (Cancelled)

Claim 24 (Cancelled)

Claim 25 (Original): A multiple output thermal detection and protection device, comprising:

first and second terminals extending through a substantially planar header and being electrically isolated therefrom;

a first stationary contact adjacent to one end of the first terminal;

a second contact adjacent to one end of the second terminal and being movable between a first position spaced away from the first stationary contact in an open circuit structure and a second position in contact with the first stationary contact in a closed circuit structure;

an upright tubular spacer projecting from the header and surrounding the first and second contacts and the portions of the first and second terminals adjacent to the contacts;

a housing enclosing the spacer, the first and second contacts, and the portions of the first and second terminals adjacent to the contacts, the housing extending beyond the spacer and cooperating with the spacer to form an annular space therebetween spaced away from the contacts;

a disc actuator captured within the annular space and being responsive to a sensed temperature to change state between a concave and a convex relationship to the electrical contacts, such that the disc actuator spaces the movable contact away from the stationary contact when in the concave relationship and the disc actuator permits the movable contact to contact the stationary contact when in the convex relationship; and

an electrical temperature sensor sharing one or more of the first and second terminals in common with the respective first and second contacts and being structured to provide an output representative of the sensed temperature.

Claim 26 (Original): The device of claim 25 wherein the disc actuator is a bi-metallic disc being structured to change state at a predetermined sensed temperature.

Claim 27 (Original): The device of claim 26 wherein the disc actuator is structured to be in the concave relationship to the electrical contacts when the sensed temperature is below the predetermined sensed temperature.

Claim 28 (Original): The device of claim 27 wherein the electrical temperature sensor shares both of the first and second terminals in common with the respective first and second contacts and being structured to provide an output representative of the sensed temperature on one of the first and second terminals when the sensed temperature is below the predetermined sensed temperature.

Claim 29 (Original): The device of claim 28 wherein the electrical temperature sensor is one of a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 30 (Original): The device of claim 26 wherein the disc actuator is structured to be in one of the concave and convex relationships to the electrical contacts when the sensed temperature is below the predetermined sensed temperature;

a third terminal extends through the header and being electrically isolated therefrom; and

the electrical temperature sensor shares one of the first and second terminals in common with the respective first and second contact and is electrically coupled to the third terminal to provide an output representative of the sensed temperature thereon.

Claim 31 (Original): The device of claim 30 wherein the electrical temperature sensor is one of a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 32 (Previously presented): A multiple output thermal detection and protection device, comprising:

first and second terminals extending through a substantially planar header and being electrically isolated therefrom;

a first stationary contact adjacent to one end of the first terminal;

a second contact adjacent to one end of the second terminal and being movable between a first position spaced away from the first stationary contact in an open circuit structure and a second position in contact with the first stationary contact in a closed circuit structure;

an upright tubular spacer projecting from the header and surrounding the first and second contacts and the portions of the first and second terminals adjacent to the contacts;

a housing enclosing the spacer, the first and second contacts, and the portions of the first and second terminals adjacent to the contacts, the housing extending beyond the spacer and cooperating with the spacer to form an annular space therebetween spaced away from the contacts;

a bi-metallic disc actuator being structured to change state at a preselected sensed temperature and being captured within the annular space and being responsive to a sensed temperature to change state between a concave and a convex relationship to the electrical contacts, such that the disc actuator spaces the movable contact away from the stationary contact when in the concave relationship and the disc actuator permits the movable contact to contact the stationary contact when in the convex relationship, wherein the disc actuator is structured to be in one of the concave and convex relationships to the electrical contacts when the sensed temperature is below the preselected sensed temperature;

a third terminal and a fourth terminal extend through the header and each being electrically isolated therefrom; and

an electrical temperature sensor is coupled to the third and fourth terminals in an independent circuit from the electrical contacts actuated by the disc actuator and being structured to provide to provide an independent output representative of the sensed temperature thereon.

Claim 33 (Original): The device of claim 32 wherein the electrical temperature sensor is one of a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 34 (Original): The device of claim 33 wherein the electrical temperature sensor is coupled to each of the third and fourth terminals and to one of the first and second terminals.

Claim 35 (Original): The device of claim 32, further comprising a fifth terminal extending through the header and being electrically isolated therefrom; and

wherein the electrical temperature sensor is a monolithic silicon temperature transducer being electrically coupled to at least two of the third, fourth and fifth terminals.

Claim 36 (Original): A three-terminal multiple output thermal detection and protection device, comprising:

first, second and third terminals extending through and on either side of a substantially planar header and being electrically isolated therefrom and from one another;

a first stationary contact fixed adjacent to one end of the first terminal;

a second contact fixed adjacent to one end of the second terminal and being movable between a first position spaced away from the first stationary contact in an open circuit structure and a second position in contact with the first stationary contact in a closed circuit structure;

an upright tubular spacer affixed to and projecting from the one side of the header and surrounding the first and second contacts, the portions of the first and second terminals adjacent to the contacts, and the third terminal;

a housing enclosing the spacer, the first and second contacts, the portions of the first and second terminals adjacent to the contacts, and the third terminal, the housing extending beyond the spacer and cooperating with the spacer to form a space therebetween spaced away from the contacts;

a disc actuator captured within the space between the spacer and the housing and being responsive to a sensed temperature for changing state between a first pressing upon and a second spaced away relationship to the movable electrical contact, such that the disc actuator spaces the movable contact away from the stationary contact when in the first pressing upon relationship and the disc actuator permits the movable to move into contact with the stationary contact when in the second spaced away relationship; and

an electrical temperature sensor sharing one of the first and second terminals in common with the respective first and second contacts and being coupled to the third terminal for providing an output signal representative of the sensed temperature.

Claim 37 (Original): The device of claim 36 wherein the disc actuator is structured to be in one of the first pressing upon relationship and the second spaced away relationship to the electrical contacts when the sensed temperature is below the predetermined sensed temperature.

Claim 38 (Original): The device of claim 36 wherein the electrical temperature sensor is one of a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 39 (Original): A four-terminal multiple output thermal detection and protection device, comprising:

first, second, third and fourth terminals extending through and on either side of a substantially planar header and being electrically isolated therefrom and from one another;

a first stationary contact fixed adjacent to one end of the first terminal;

a second contact fixed adjacent to one end of the second terminal and being movable between a first position spaced away from the first stationary contact in an open circuit structure and a second position in contact with the first stationary contact in a closed circuit structure;

an upright tubular spacer affixed to and projecting from the one side of the header and surrounding the first and second contacts, the portions of the first and second terminals adjacent to the contacts, and the third terminal;

a housing enclosing the spacer, the first and second contacts, the portions of the first and second terminals adjacent to the contacts, and the third terminal, the housing extending beyond the spacer and cooperating with the spacer to form a space therebetween spaced away from the contacts;

a disc actuator captured within the space between the spacer and the housing and being responsive to a sensed temperature for changing state between a first pressing upon and a second spaced away relationship to the movable electrical contact, such that the disc actuator spaces the movable contact away from the stationary contact when in the first pressing upon relationship and the disc actuator permits the movable to move into contact with the stationary contact when in the second spaced away relationship; and

an electrical temperature sensor electrically coupled between the third and fourth terminals for providing an output signal representative of the sensed temperature.

Claim 40 (Original): The device of claim 39 wherein the electrical temperature sensor is one of a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 41 (Original):The device of claim 39 further comprising a fifth terminal extending through and on either side of a substantially planar header and being electrically isolated therefrom and from each of the first, second, third, and fourth terminals; and

wherein the electrical temperature sensor is a monolithic silicon temperature transducer being electrically coupled to at least two of the third, fourth and fifth terminals.

Claim 42 (Previously presented): A method for providing thermal detection and protection in a single device, the method comprising:

sensing temperature with an electrical temperature sensor portion of a first circuit that is electrically isolated from a housing supporting the first circuit;

outputting on the first circuit a first signal representative of the sensed temperature;

sensing a predetermined set point temperature; and

in response to sensing the predetermined set point temperature, positively closing a second circuit that is electrically isolated from the housing which also supports the second circuit and outputting on at least one common terminal with the first circuit a second signal representative of the sensed set point temperature.

Claim 43 (Cancelled)

Claim 44 (Previously presented): The method of claim 42 wherein closing the second circuit shorts the first circuit.

Claim 45 (Previously presented): The method of claim 42 wherein sensing temperature with an electrical temperature sensor portion of a first circuit is operated after positively closing the second circuit.

Claim 46 (New): The device of claim 14 wherein the bonding agent further comprises a thermally conductive bonding agent.

Claim 47 (New): The device of claim 14 wherein the electrical temperature sensor and the snap-action thermal switch output a signal representative of temperature using one or more electrical terminals in common.

Claim 48 (New):The device of claim 47 wherein the snap-action thermal switch is structured to be normally open at sensed temperatures below a predetermined set point;

the two-terminal snap-action thermal switch includes two terminals that are mutually electrically isolated when the snap-action thermal switch structured in the normally open configuration; and

the integral electrical temperature sensor is electrically coupled across the two isolated terminals.

Claim 49 (New):The device of claim 48 wherein electrical contact portions of the two isolated terminals are closed at sensed temperatures above a predetermined set point.

Claim 50 (New):The device of claim 47 wherein the two-terminal snap-action thermal switch includes two electrical terminals that are mutually electrically isolated when the snap-action thermal switch structured in the normally open configuration;

the snap-action thermal switch is structured to be in one of the normally open and a normally closed configuration at sensed temperatures below a predetermined set point;

further comprising a third electrical terminal that is mutually electrically isolated from the two electrical terminals of the two-terminal snap-action thermal switch; and

wherein one of the two isolated terminals of the two-terminal snap-action thermal switch is shared by one terminal of the integral electrical temperature sensor, and a second terminal of the integral electrical temperature sensor is electrically coupled to the third electrical terminal.

Claim 51 (New):The device of claim 50 wherein the shared one of the two isolated terminals of the two-terminal snap-action thermal switch is structured to be coupled to a voltage source, a

second one of the two isolated terminals is structured to be coupled to a load, and the output of the integral electrical temperature sensor is coupled to the third electrical terminal.

Claim 52 (New): The device of claim 51 wherein the integral electrical temperature sensor is an electrical temperature sensor selected from a group of electrical temperature sensors that includes a resistance thermal device (RTD), a platinum resistance thermal device (PRTD), a thermistor, a thermocouple, and a monolithic silicon temperature transducer.

Claim 53 (New): The device of claim 51 wherein the integral electrical temperature sensor is a flat package, two-terminal temperature transducer microchip .